

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (Cancelled)
3. (Currently amended) A titanium binding peptide comprising an amino acid sequence ~~shown in~~ of SEQ ID NO: 1.
4. (Cancelled)
5. (Cancelled)
6. (Currently amended) ~~[[The]] A~~ titanium binding peptide ~~according to claim 5,~~ comprising an amino acid sequence ~~shown in~~ of SEQ ID NO: 2 ~~wherein the 2nd lysine is substituted by alanine.~~
7. (Currently amended) A titanium binding peptide comprising an amino acid sequence ~~shown in~~ of SEQ ID NO: 3.
8. (Cancelled)
9. (Cancelled)
10. (Currently amended) ~~[[The]] A~~ titanium binding peptide ~~according to claim 8,~~ comprising ~~any one of the~~ amino acid sequences ~~shown in~~ of SEQ ID NOs: 4 to 14, wherein the 1 to 5th and 7 to 12th amino acid residues are substituted by alanine, ~~respectively.~~

11. (Currently amended) ~~[[The]] A titanium binding peptide according to claim 8 or 9, comprising an amino acid sequence shown in of SEQ ID NO: 15, wherein alanine is added/inserted to the N-terminal of the amino acid sequence shown in SEQ ID NO: 3.~~
12. (Currently amended) ~~[[The]] A titanium binding peptide comprising any one of the amino acid sequences shown in of SEQ ID NOs: 16 to 24.~~
13. (Cancelled)
14. (Currently amended) A titanium binding peptide comprising any one of the ~~[[an]]~~ amino acid sequence sequences of ~~shown in~~ SEQ ID NOs: 25 to 38.
15. (Cancelled)
16. (Currently amended) The titanium binding peptide according to claim 3 ~~any one of claims 2 to 5~~, being chemically modified.
17. (Currently amended) The titanium binding peptide according to claim 3 ~~any one of claims 2 to 5~~, wherein titanium is a metal titanium, a titanium alloy or a titanium dioxide.
18. (Currently amended) A titanium-peptide complex, wherein the titanium binding peptide according to claim 3 ~~any one of claims 2 to 5~~ is bound to titanium.
19. (Currently amended) An artificial titanium binding protein ~~being a conjugate of~~ comprising the titanium binding peptide according to claim 3 conjugated ~~any one of claims 2 to 5~~, with a functional peptide or a functional protein.
20. (Original) The artificial protein according to claim 19, wherein the functional peptide or the functional protein is a peptide or a protein that cooperates with a titanium binding peptide to form a two-dimensional crystalline by self-assembly.
21. (Original) The artificial protein according to claim 19, wherein the functional peptide or the functional protein is a peptide or a protein comprising a peptide sequence having a cell-recognizing ability such as cell adhesion ability.

22. (Previously presented) A titanium-artificial protein complex, wherein the artificial protein according to claim 19 is bound to titanium.
23. (Currently amended) A titanium binding chimeric protein ~~being a conjugate of~~ comprising the titanium binding peptide according to claim 3 conjugated ~~any one of~~ claims 2 to 5, with a labeled substance, ~~[[or]]~~ a peptide tag, or ~~with a conjugate with a~~ nonpeptide compound.
24. (Original) A titanium-chimeric protein complex, wherein the chimeric protein according to claim 23 is bound to titanium.
25. (Currently amended) A titanium binding phage expressing the titanium binding peptide according to claim 3 ~~any one of claims 2 to 5~~ on the particle surface.
26. (Original) A titanium-phage complex, wherein the phage according to claim 25 is bound to titanium.
27. (Cancelled)
28. (Cancelled)
29. (Cancelled)
30. (Cancelled)
31. (Original) An implant material comprising the titanium-artificial protein complex according to claim 22 as an active ingredient.
32. (Currently amended) A silver binding peptide comprising an amino acid sequence ~~shown~~ in SEQ ID NO: 1.
33. (Cancelled)
34. (Cancelled)

35. (Currently amended) ~~[[The]]~~ A silver binding peptide ~~according to claim 34~~, comprising an amino acid sequence ~~shown in~~ of SEQ ID NO: 2, ~~wherein the 2nd lysine is substituted by alanine.~~
36. (Currently amended) A silver binding peptide comprising an amino acid sequence ~~shown in~~ of SEQ ID NO: 3.
37. (Cancelled)
38. (Currently amended) The silver binding peptide according to claim 32, 35 or 36 ~~any one of claims 32 to 34~~, being chemically modified.
39. (Currently amended) A silver-peptide complex, wherein the silver binding peptide according to claim 32, 35 or 36 ~~any one of claims 32 to 34~~ is bound to silver.
40. (Currently amended) A silver binding artificial protein ~~being a conjugate of~~ comprising the silver binding peptide according to claim 32, 35 or 36 ~~conjugated any one of claims 32 to 34~~, with a functional peptide or a functional protein.
41. (Original) A silver-artificial protein complex, wherein the artificial protein according to claim 40 is bound to silver.
42. (Currently amended) A silver binding chimeric protein ~~being a conjugate of~~ comprising the silver binding peptide according to claim 32, 35 or 36 ~~conjugated any one of claims 32 to 34~~, with a labeled substance, ~~[[or]]~~ a peptide tag, or ~~with a conjugate with a~~ nonpeptide compound.
43. (Original) A silver-chimeric protein complex, wherein the chimeric protein according to claim 42 is bound to silver.
44. (Currently amended) A silver binding phage expressing the silver binding peptide according to claim 32, 35 or 36 ~~any one of claims 32 to~~ on the particle surface.
45. (Original) A silver-phage complex, wherein the phage according to claim 44 is bound to silver.

- 46. (Cancelled)
- 47. (Cancelled)
- 48. (Cancelled)
- 49. (Cancelled)
- 50. (Currently amended) A silicon binding peptide comprising an amino acid sequence ~~shown in~~ of SEQ ID NO: 1.
- 51. (Cancelled)
- 52. (Cancelled)
- 53. (Currently amended) ~~[[The]]~~ A silicon binding peptide ~~according to claim 50,~~ comprising an amino acid sequence ~~shown in~~ of SEQ ID NO: 2, ~~wherein the 2nd lysine is substituted by alanine.~~
- 54. (Currently amended) A silicon binding peptide comprising an amino acid sequence ~~shown in~~ of SEQ ID NO: 3.
- 55. (Cancelled)
- 56. (Currently amended) The silicon binding peptide according to claim 50, 53 or 54 ~~any one of claims 50 to 52,~~ being chemically modified.
- 57. (Currently amended) A silicon-peptide complex, wherein the silicon binding peptide according to claim 50, 53 or 54 ~~any one of claims 50 to 52~~ is bound to silicon.
- 58. (Currently amended) A silicon binding artificial protein ~~being a conjugate of~~ comprising the silicon binding peptide according to claim 50, 53 or 54 ~~conjugated any one of claims 50 to 52,~~ with a functional peptide or a functional protein.
- 59. (Original) A silicon-artificial protein complex, wherein the artificial protein according to claim 58 is bound to silicon.

60. (Currently amended) A silicon binding chimeric protein ~~being a conjugate of~~ comprising the silicon binding peptide according to claim 50, 53 or 54 ~~conjugated any one of claims 50 to 52,~~ with a labeled substance, ~~[[or]]~~ a peptide-tag, or ~~being a conjugate with a~~ nonpeptide compound.
61. (Original) A silicon-chimeric protein complex wherein the chimeric protein according to claim 60 is bound to silicon.
62. (Currently amended) A silicon binding phage expressing the silicon binding peptide according to claim 50, 53 or 54 ~~any one of claims 50 to 52~~ on the particle surface.
63. (Original) A silicon-phage complex, wherein the phage according to claim 62 is bound to silicon.
64. (Cancelled)
65. (Cancelled)
66. (Cancelled)
67. (Cancelled)
68. (Cancelled)
69. (Cancelled)